

Regional Director, Boston, Mass.

Nov. 20, 1964

Refuge Manager, Parker River N. W. Refuge, Newburyport, Mass.

General Engineering Services - F.Y. 1965 - Parker River

Reference is made to Mr. Horn's memorandum dated August 26th.

Using the established bench marks on the concrete headwall between the North and South Pools and on the pool side of the South Pool drain, we have reset both gauges.

The North Pool bench mark reads 7.23' MSL and the water level reading from that bench mark was 4.45' MSL at that particular time on Nov. 19th. The gauge read 2.18'. Considering the 3.22' correction referred to in Mr. Dudley W. Crawford's memorandum of May 21, 1959, we found that the gauge read 0.95' too high. After rechecking by two different individuals and in addition with the bench mark No. 7 on the South Pool, the gauge was set to read the 4.45' MSL shown by the level shots. This will necessitate a net amount of 2.27' be added to all previous readings of the North Pool gauge to indicate true MSL.

The South Pool bench mark reads 9.77' MSL and the water level reading from that bench mark was 4.73' MSL at that particular time on Nov. 19th. The gauge read 2.88'. This reading was verified by two individuals and by cross-dike shots on both pools' water levels, and the gauge was set to read 4.73' MSL from the bench mark. This will necessitate a net amount of 1.85' be added to all previous readings of the North Pool gauge to indicate true MSL.

The North Pool gauge was firmly anchored and there is very little possibility that it had moved from frost-heaving. The South Pool gauge was not as solid laterally, but resisted all efforts to move up or down and we do not feel that it has moved from frost-heaving in recent months.

The difference between pool levels was 0.28'. This was determined by separate readings from their respective bench marks and from water to water shots and verified. All shots were tied in to both bench marks and to pool levels. We feel that these gauges, including Stage Island are correct and now read directly in relation to MSL. We will include a notation of the changes on our next gauge reading and weather report.

  
William L. French

UNITED STATES GOVERNMENT

# Memorandum

TO : Refuge Manager, Parker River Refuge,  
Newburyport, Mass.

DATE: August 26, 1964

FROM : Regional Refuge Supervisor, Boston, Mass.

SUBJECT: General Engineering Services - F.Y. 1965 - Parker River

Reference is made to your memorandum of July 15 in connection with services needed during the fiscal year. We need additional information in order to clarify the work required.

Bench marks should be set so that the 0.00 level can be easily and conveniently transferred to water gauges with a carpenter's level or across the surface of the water without need of surveying instruments. The bench mark you propose at Great Meadows should be in the vicinity of the observation tower so gauges for both pools can be set and reset from one bench mark. We suggest that you use a class "A" survey corner monument for this with the base set well below the frost line to prevent heaving.

You have established bench marks on the concrete headwall between the North and South Pools and on the pool side headwall of the South Pool drain structure. We are sure that you are ingenious enough to set or reset the gauges in both of these pools from these bench marks with an ordinary tape or ruler.

There was a firm elevation established on the steel headwall of the Stage Island Pool structure. Has this been lost or changed? No to both.

We are attempting to find a source for the procurement of an aluminum level rod pursuant to your request. Noted

Keep in mind that the responsibility of our Engineering Branch is to run levels and stamp the elevations on the caps that we have set. It is normally the refuge's responsibility to set the gauges from the bench marks.



Thomas C. Horn

RECEIVED

AUG 29 1964

PARKER RIVER REFUGE